

Purchasing Green Energy at Penn: Challenges and Responses

University of Pennsylvania

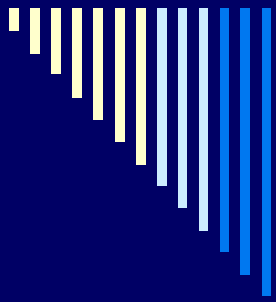
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Challenges & Responses: Outline

- University of Pennsylvania Facts
- Penn's Challenges
- Penn's Responses
- Strategies to Develop Green Initiatives



University of Pennsylvania Facts

- America's First University
- Enrollment: 22,326
- Faculty: 4,319
- Largest private employer in Philadelphia
- Fourth largest private employer in Pennsylvania
- Budget: \$3.21 billion (FY '02)
- 364,000,000 kWh electricity-use (FY '02)



Challenge: Large/Diverse Organization

- University Programs

- Undergraduate/Graduate/Professional Degrees
- 12,290 employees

- Large Health System

- 12,673 employees

- Premier Research University

- \$500 million in annual R&D

Challenge: Competitive Environment

- Penn ranked 4th in U.S. News & World Report Rankings



Challenge: Campus Growth



- Jon M. Huntsman Hall (Wharton School)
- 320,000 Sq. Ft. (2002)



- Biomedical Research Bldg (School of Medicine)
- 385,000 Sq. Ft. (1999)



Challenge: Energy Costs

	Electricity (kWh)	Steam (Mlbs)	Total Cost (\$1,000's)
FY '99	361,264,000	1,167,160	\$35,783
FY '00	375,877,000	1,231,051	\$37,513
FY '01	366,728,000	1,276,154	\$51,267
FY '02:	363,681,000	1,140,456	\$38,400



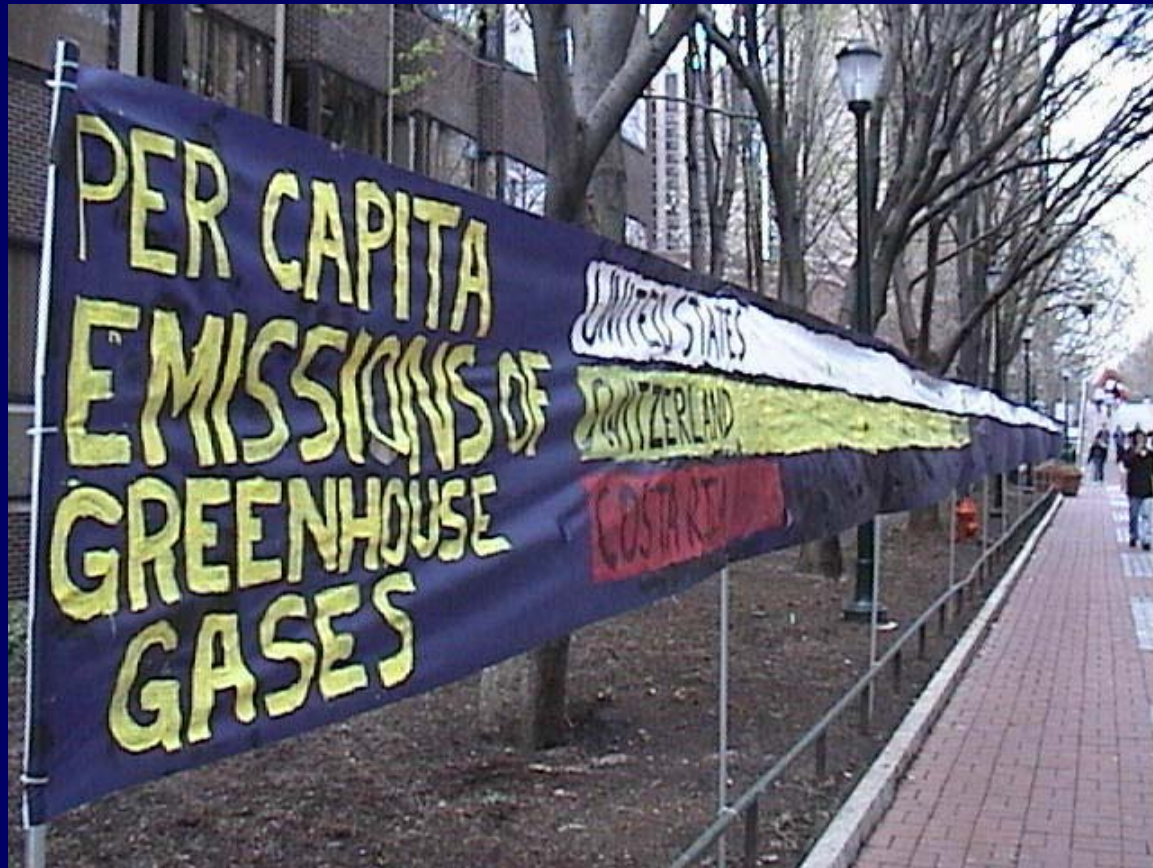
Penn's Response: The Decision Process

- Strategic Utilities Group:
 - Associate VP of O&M, Associate VP of Finance, University Engineer, Utility Operations Manager, Director of Central Services
- Energy Contracts
- Operational Issues
- Environmental Issues

Penn's Response: Conservation & Technology



Penn's Response: Student Involvement





Penn's Response: Results

Energy *Reductions* Since FY 2000

12,196,000 kWh

Including Building Growth

31,856,000 kWh

Excluding Building Growth



Penn's Response: Wind Power

- Reinvest financial savings from conservation efforts
 - 20,000,000 kWh of wind power annually
 - 5.5% of electricity need
- Provides a tangible result of faculty/staff/students conservation efforts
 - Removes a perception of financial motivations behind conservation
 - Encourages continued conservation



Strategies to Develop Green Initiatives

- ❑ Reduce energy use/cost - always first
- ❑ Connect efforts to help offset the premium associated with green alternatives (i.e. conservation & wind power)
- ❑ Redirect focus of green initiatives from cost to environmental benefits
- ❑ Eliminate all possible risk perceptions
- ❑ Make contract terms simple

Questions and Answers

